

I claim:

1. A remotely monitored and controlled building automation system comprised of:
 - a BAS controller especially configured and adapted to generate and transmit a simplified BAS alarm to an offsite location in response to reception of sensor data indicating existence of a monitored condition beyond acceptable parameters, the BAS controller also being especially configured and adapted to provide two way communication of detailed BAS sensor and control data between the controller and a remote, offsite location;
 - 10 at least one remote node having a processor, power source and at least one sensor especially configured and adapted to monitor building data, and a communications interface enabling data transmission between the node and BAS controller;
 - 15 a security monitoring center having a communications interface especially configured and adapted to monitor for and receive the simplified BAS alarm generated by the BAS controller, and further configured and adapted to re-transmit the simplified BAS alarm to a server;
 - 20 a BAS web server having a communications interface, especially configured and adapted to receive the simplified BAS alarm transmitted by the security monitoring center and thereafter display same at a website operated, maintained and controlled by the BAS web server;
 - 25 a BAS website especially configured and adapted to receive the simplified BAS alarm transmitted by the BAS web server and to thereafter transmit same to a BAS dealer, said website also configured and adapted to provide the dealer with a portal providing two-way communication with the BAS controller;
 - 30 a BAS dealer having a computer including a communications interface, especially adapted and configured to enable two-way communications between the dealer and the BAS web site thereby enabling the dealer to receive the simplified BAS alarm displayed upon, and transmitted by the BAS website as well as to utilize two way communication with the BAS controller via the portal provided by the BAS website.
2. The remotely monitored and controlled building automation system of

claim 1 wherein the BAS controller comprises a computer processor, BAS software, data storage means, power supply, alarm communication interface, remote communication interface and a node communication interface.

3. The remotely monitored and controlled building automation system of

5 claim 1 further comprising a security control board wherein, in response to reception of sensor data indicating the existence of a monitored condition beyond acceptable parameters, the BAS controller transmits an alarm signal to the security control board, which, in turn, transmits the simplified BAS alarm to the security monitoring center.

10 4. The remotely monitored and controlled building automation system of claim 2 wherein the data storage means is selected from the group consisting of RAM and hard disc drives.

5. The remotely monitored and controlled building automation system of claim 2 wherein the BAS controller power supply comprises line electricity.

15 6. The remotely monitored and controlled building automation system of claim 5 wherein BAS controller power supply further comprises a battery back up system.

7. The remotely monitored and controlled building automation system of claim 2 wherein the node communication interface is selected from the group consisting of hard wired, wireless, local network and modulated electric communications interfaces.

20 8. The remotely monitored and controlled building automation system of claim 2 wherein the alarm BAS communications interface is selected from the group consisting of hard wired, telephone, high speed copper cable, high speed fiber optic cable and wireless interfaces.

25 9. The remotely monitored and controlled building automation system of claim 3 wherein the simplified BAS alarm generated by the BAS controller is a simple electronic pulse resulting from a dry contact closure and wherein the pulse is transmitted to a switch position located upon the security control board coded as an energy alarm.

30 10. The remotely monitored and controlled building automation system of claim 2 wherein the BAS controller remote communications interface is selected from the group consisting of hard wired, telephone, high speed copper cable, high speed

fiber optic cable and wireless interfaces.

11. The remotely monitored and controlled building automation system of claim 2 wherein the remote node power source is selected from the group consisting of line electricity, battery power, and a UPS device.

5 12. The remotely monitored and controlled building automation system of claim 2 wherein the remote node communications interface is selected from the group consisting of hard wired, wireless, local network and modulated electric wiring interfaces.

10 13. The remotely monitored and controlled building automation system of claim 2 wherein the security monitoring communications interface is selected from the group consisting of telephone, high speed copper cable, high speed fiber optic cable and wireless interfaces.

15 14. The remotely monitored and controlled building automation system of claim 2 wherein the BAS web server comprises a processor, data storage means and software especially configured and adapted to enable the server to operate, maintain and control the BAS web site.

15. The remotely monitored and controlled building automation system of claim 14 wherein the data storage means comprises a hard disc drive.

20 16. The remotely monitored and controlled building automation system of claim 15 wherein the server software comprises computerized maintenance management software which enables the server to provide management assistance to dealers.

25 17. The remotely monitored and controlled building automation system of claim 16 wherein the management assistance provided by said software includes the generation of alarm work orders and maintenance work orders.

18. The remotely monitored and controlled building automation system of claim 2 wherein the server communication interface is selected from the group consisting of telephone, high speed fiber optic cable, high speed copper cable and wireless interfaces.

30 19. The remotely monitored and controlled building automation system of claim 18 wherein the BAS web server transmits a simplified BAS alarm to the dealer utilizing wireless technology.

20. The remotely monitored and controlled building automation system of claim 19 wherein the wireless technology is selected from the group consisting of beepers, text message devices, or Nextel.

21. The remotely monitored and controlled building automation system of claim 2 wherein access to the BAS web site requires input of an IP address, user name and password.

22. The remotely monitored and controlled building automation system of claim 2 wherein the BAS dealer computer communications interface is selected from the group consisting of telephone, high speed copper, high speed fiber optic and wireless interfaces.

23. The remotely monitored and controlled building automation system of claim 2 wherein access to detailed BAS data is provided to clients.

24. The remotely monitored and controlled building automation system of claim 3 wherein the security control board transmits the simplified BAS alarm received from the BAS controller to the security monitoring center via a security system board communications interface.

25. The remotely monitored and controlled building automation system of claim 24 wherein the security system board communications interface is selected from the group consisting of hard wired, telephone, high speed copper, high speed fiber optic and wireless interfaces.

26. The remotely monitored and controlled building automation system of claim 2 wherein the BAS controller additionally comprises a controller board and software for effecting control of devices monitored by the system.

27. The remotely monitored and controlled building automation system of claim 2 wherein the BAS controller additionally comprises relays and software for effecting control of devices monitored by the system

28. The remotely monitored and controlled building automation system of claim 2 wherein the at least one remote node additionally comprises a controller board for effecting local control of a device monitored by the node.

29. The remotely monitored and controlled building automation system of claim 2 wherein the remote node additionally comprises relays and software enabling the node to locally control a device monitored by the node without receiving control

data from the BAS controller.

30. A remotely monitored and controlled building automation system comprised of:

5 a BAS controller especially configured and adapted to generate and transmit a simplified BAS alarm in response to reception of sensor data indicating existence of a monitored condition beyond acceptable parameters, the BAS controller also being especially configured and adapted to provide two way communication of detailed BAS sensor and control data between the controller and a remote, offsite location;

10 at least one remote node having a processor, power source and at least one sensor especially configured and adapted to monitor building data, and a communications interface enabling data transmission between the node and the BAS controller;

15 a security control board having a communications interface, especially configured and adapted to receive the simplified BAS alarm generated by the BAS controller and thereafter transmit same to an offsite location;

20 a security monitoring center, having a communications interface, especially configured and adapted to monitor and receive the simplified BAS alarm transmitted by the security control board, and further configured and adapted to re-transmit the simplified BAS alarm to a server;

25 a BAS web server having a communications interface, especially configured and adapted to receive the simplified BAS alarm transmitted by the security monitoring center and thereafter display same at a website operated, maintained and controlled by the BAS web server;

30 a BAS website especially configured and adapted to receive the simplified BAS alarm transmitted by the BAS web server and to thereafter transmit same to a BAS dealer, said website also configured and adapted to provide the dealer with a portal providing two-way communication with the BAS controller;

35 a BAS dealer having a computer including a communications interface, especially adapted and configured to enable two-way communications between the dealer and the BAS web site thereby enabling the dealer to receive the simplified BAS alarm displayed upon, and transmitted by the BAS website as well as to enable

utilization of the two way communication with the BAS controller provided by the BAS website.

31. The remotely monitored and controlled building automation system of
claim 1 wherein the BAS controller comprises a computer processor, BAS software,
5 data storage means, power supply, alarm communication interface, remote
communication interface and a node communication interface.

32. The remotely monitored and controlled building automation system of
claim 31 wherein the data storage means is selected from the group consisting of
RAM and hard disc drives.

10 33. The remotely monitored and controlled building automation system of
claim 31 wherein the BAS controller power supply comprises line electricity.

34. The remotely monitored and controlled building automation system of
claim 33 wherein BAS controller power supply further comprises a battery back up
system.

15 35. The remotely monitored and controlled building automation system of
claim 30 wherein the node communication interface is selected from the group
consisting of hard wired, wireless, local network and modulated electric wiring
communications interfaces.

36. The remotely monitored and controlled building automation system of
20 claim 31 wherein the BAS controller alarm communications interface is selected from
the group consisting of hard wired, telephone, high speed copper cable, high speed
fiber optic cable and wireless interfaces.

25 37. The remotely monitored and controlled building automation system of
claim 36 wherein the simplified BAS alarm generated by the BAS controller is a
simple electronic pulse resulting from a dry contact closure and wherein the pulse is
transmitted to a switch position located upon the security control board coded as an
energy alarm.

30 38. The remotely monitored and controlled building automation system of
claim 31 wherein the BAS controller remote communications interface is selected
from the group consisting of hard wired, telephone, high speed copper cable, high
speed fiber optic cable and wireless interfaces.

39. The remotely monitored and controlled building automation system of

claim 30 wherein the remote node power source is selected from the group consisting of line electricity, battery power, and a UPS device.

40. The remotely monitored and controlled building automation system of claim 30 wherein the remote node communications interface is selected from the group consisting of hard wired, wireless, local network and modulated electric wiring interfaces.

41. The remotely monitored and controlled building automation system of claim 30 wherein the security monitoring communications interface is selected from the group consisting of telephone, high speed copper cable, high speed fiber optic cable and wireless interfaces.

42. The remotely monitored and controlled building automation system of claim 30 wherein the BAS web server comprises a processor, data storage means and software especially configured and adapted to enable the server to operate, maintain and control the BAS web site.

43. The remotely monitored and controlled building automation system of claim 42 wherein the data storage means comprises a hard disc drive.

44. The remotely monitored and controlled building automation system of claim 42 wherein the server software comprises computerized maintenance management software which enables the server to provide management assistance to dealers.

45. The remotely monitored and controlled building automation system of claim 44 wherein the management assistance provided by said software includes the generation of alarm work orders and maintenance work orders.

46. The remotely monitored and controlled building automation system of claim 30 wherein the server communication interface is selected from the group consisting of telephone, high speed fiber optic cable, high speed copper cable and wireless interfaces.

47. The remotely monitored and controlled building automation system of claim 46 wherein the BAS web server transmits a simplified BAS alarm to a dealer utilizing wireless technology.

48. The remotely monitored and controlled building automation system of

claim 47 wherein the wireless technology is selected from the group consisting of beepers, text message devices, or Nextel.

49. The remotely monitored and controlled building automation system of claim 30 wherein access to the BAS web site requires input of an IP address, user name and password.

5 50. The remotely monitored and controlled building automation system of claim 30 wherein the BAS dealer computer communications interface is selected from the group consisting of telephone, high speed copper cable, high speed fiber optic and wireless interfaces.

10 51. The remotely monitored and controlled building automation system of claim 30 wherein access to detailed BAS data is provided to clients.

15 52. The remotely monitored and controlled building automation system of claim 30 wherein the security system board communications interface is selected from the group consisting of hard wired, telephone, high speed copper, high speed fiber optic and wireless interfaces.

53. The remotely monitored and controlled building automation system of claim 31 wherein the BAS controller additionally comprises a controller board and software for effecting control of devices monitored by the system.

20 54. The remotely monitored and controlled building automation system of claim 31 wherein the BAS controller additionally comprises relays and software for effecting control of devices monitored by the system

25 55. The remotely monitored and controlled building automation system of claim 30 wherein the at least one remote node additionally comprises a device controller board and software for effecting local control of devices monitored by the node.

56. The remotely monitored and controller building automation system of claim 30 wherein the at least one remote node additionally comprises relays and software for effecting local control of devices monitored by the node.

30 57. A BAS controller especially configured and adapted to generate a simplified BAS alarm in response to reception of sensor data indicative of existence of a monitored condition exceeding programmed BAS software parameters and to

provide two way communication of detailed BAS data between the BAS controller and an offsite location.

5 58. The BAS controller of claim 57 wherein said controller is comprised of a computer processor, BAS software, data storage means, remote communications interface, node communications interface, alarm communications interface and a power source.

10 59. The BAS controller of claim 58 wherein the BAS software is especially configured and adapted to cause the controller to generate the simplified BAS alarm upon receipt by the BAS controller of sensor data indicating that a monitored condition has exceeded programmed BAS software parameters.

60. The BAS controller of claim 58 wherein the BAS controller data storage means is selected from the group consisting of RAM and hard disc drive storage devices.

15 61. The BAS controller of claim 58 wherein the BAS controller power supply comprises line electricity.

62. The BAS controller of claim 61 wherein the BAS controller power supply further comprises a battery back up system.

20 63. The BAS controller claim 58 wherein the node communication interface is selected from the group consisting of hard wired, wireless, local network and modulated electric communications interfaces.

64. The BAS controller of claim 58 wherein the alarm communications interface is selected from the group consisting of hard wired, telephone, high speed copper cable, high speed fiber optic cable and wireless interfaces.

25 65. The BAS controller of claim 64 wherein the simplified BAS alarm generated by the BAS controller is a simple electronic pulse resulting from a dry contact closure and wherein the pulse is transmitted to a switch position located upon a security control board coded as an energy alarm.

30 66. The BAS controller of claim 58 wherein the remote communications interface is selected from the group consisting of hard wired, telephone, high speed copper cable, high speed fiber optic cable and wireless interfaces.

67. A security control board especially configured and adapted to receive and recognize a signal generated by a BAS controller, in response to reception by the

controller of sensor data indicating the existence of a monitored condition exceeding acceptable parameters, as a simplified BAS alarm and thereafter re-transmit same to an offsite security monitoring center.

68. The security control board of claim 66 wherein said control board includes
5 an alarm sensor interface and a remote communications interface.

69. The security control board of claim 67 wherein a sensor position located upon the alarm sensor interface is especially coded to electronically read as "energy alarm" upon receipt thereby of the signal generated by the BAS controller.

70. The security control board of claim 67 wherein the alarm sensor interface
10 receives the signal from the BAS controller from the group consisting of hard wire, wireless, infra-red, network and modulated building electric wiring technology.

71. The security control board of claim 67 wherein the remote
communications interface is selected from the group consisting of hard wired,
15 wireless, telephone, high speed fiber optic cable and high speed copper cable
interfaces.

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